

the Section 112, para. 2, rejection of Paras. 2 and 3 of the Office Action and of the objection of Para. 1. Withdrawal is respectfully requested.

Claims 1-3, 13 and 15 have been rejected under 35USC102(b) as being anticipated by USP'568 while Claims 1-3 and 13-16 have been rejected under 35USC102(e) as anticipated by USP'417. Claims 1-3, 13 and 16 have been cancelled. New Claim 17 claims the preferred embodiment as originally defined in Claim 1 and dependent Claims 2-4. It is respectfully submitted that neither rejection is applicable to Claim 17 simply because neither rejection was applied to original Claim 4, now included in Claim 17. It is submitted that if neither rejection was applied originally to Claim 4, neither is now applicable to Claim 17, which defines the preferred embodiment in more precise and accurate terms. Especially is this so with respect to the diamines, within the claimed definition of which a hydrazide having a nitrogen-nitrogen bond, i.e., "-NH-NH-moiety", according to the references, cannot by any stretch be deemed to be included.

Claim 17 defines a cross-linked hyaluronic acid product obtained by the reaction of the carboxylic acid groups of the hyaluronic acid with a diamine whereby a hyaluronic acid molecule may be cross-linked with another hyaluronic acid molecule. In contrast, while both USP'586 and USP'417 use dihydrazines as cross-linking agents, they are used to introduce a function which may be used to link a different molecule to hyaluronic acid, not to cross-link a hyaluronic acid molecule with another

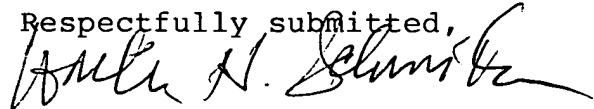
hyaluronic acid molecule. In order to cross-link hyaluronic acid molecules according to USP '417 (col. 2, ls.4-6), it is necessary to introduce an additional reactant such as Traut's reagent which provides cross linking through disulfide bonds (see Scheme 2 in USP '417 as well as Scheme 2 in USP '568). In the absence of such a cross-linking agent, the hydrazido hyaluronic acid derivatives of the references have no cross-linking but, to the contrary, merely have at one end thereof a hydrazido moiety which can be used as a "pendant functional group which acts as a versatile coupling site" (see USP '417, col 2, ls. 7-9). In view of the above, Applicant submits that the two rejections are not well taken with respect to Claim 17, as well as the claims dependent therefrom, and should be withdrawn. Such action is respectfully requested.

Claims 1-4 and 12-16, all of the claims pending at the date of the Office Action, have also been rejected under 35USC103(a) as being unpatentable over USP '417 in view of USP '753. Claims 1-4 have been cancelled in favor of new Claim 17 while Claims 13 and 16 have been cancelled and not replaced. The failings of USP '417 with respect to the invention defined in Claim 17 have been discussed above and are similarly applicable to this Section 103(a) rejection. It is respectfully submitted that these failings are not accounted for by the disclosure of USP '753 in any way, shape or form, which would make it readily obvious to a man of ordinary skill in the art to combine the disclosures

thereby arriving at the claimed invention of Claim 17. As to the various properties and uses as setforth in Claim 15, these are as well disclosed in Applicant's disclosure as part of the prior art relating to hyaluronic acid. It is respectfully submitted that the Section 103(a) rejection does not meet the statutory standard whereby patentability of the claims can be denied. A withdrawal of the rejection is respectfully requested.

An early action leading to the issuance of a Notice of Allowance is respectfully solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Walter H. Schneider", written over the typed name.

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ADDENDUM

12. A cross-linked hyaluronic acid according to Claim 17 [3] wherein the hydroxy groups are sulphated or hemisuccinylated.

14. A cross-linked hyaluronic acid according to Claim 17 [3] in which the metal is selected from zinc, copper and iron [irom].

15. A pharmaceutical composition [compositions] useful as (a) a substitute [substitutes] synovial fluid in the treatment of osteoarthritic conditions and for vitreous humor in the treatment of pathologies and side [-] effects connected to ophthalmic surgery; (b) as a base for artificial tears formulation; (c) as a controlled release matrix [mattrices] of medicaments; and (d) as a healing and anti-adhesive agent [agents] in which the principal ingredient is a cross-linked hyaluronic acid according to Claim 17 [3].